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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/461,072	12/14/1999	SANDRO GREGORAT	SAMS01-00077	3301

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EXAMINER

NGUYEN, CAM-LINH T.

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 01/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/461,072

Applicant(s)

GREGORAT, SANDRO

Examiner

Cam-Linh T. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1- 9, 11-17, 19- 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Bauer et al (U.S. 5,926,816).

♦ As per claim 1, 9 and 17, Bauer discloses one priority art approach to synchronization has been to transmit a copy of the replica from the server to each client (See column 1 line 35-40). This referred as "copy controller" because it copy data from server to client side. Bauer teaches a system that comprising a server node and a plurality of client node and the database maintains data through arbitrary modification operations (See column 5 line 65-67, column 6 line 1-24). Bauer also teaches that the term synchronize is defined to be the act whereby data in two database are restored to consistency (See column 1 line 50-

57, column 2 line 64-67). Furthermore, the database synchronizer determines which modification or changed occurred at the client. This modification is in client side to detect modifications by comparing client data with before-image of the client data (see column 2 line 4-20). Both client and server side have their own synchronizer (see column 8 line 3-45). This is referred same as "update controller" that applicant claim (See column 2 line 46-57).

♦ As per claim 3, 11 and 19, Bauer teaches that the databases are relational databases, which organize data in tables of row and columns of data fields (See column 2 line 25-40, column 8 line 7-10). In addition, the server maintains an update log of all operations on the server's replicated data since the time of last refresh for each client. For each row, there will be a logged entries (see column 2 line 60-67).

♦ As per claim 4, 12 and 20, Bauer teaches that catalogs on the client and server manifest table correspondences that list in a common, indexed order all the columns of the replicated tables on that computer (see column 3 line 12-25).

♦ As per claim 5, 13 and 21, Bauer teaches that the server compare the server effective operation with the row as stored in the server database and with timestamps stored in the update log in the purpose of minimize the amount of information communicated to the server by the client (see column 4 line 15-39). Since a replicated column on the server and the replica column on the client have the same index value into the respective table correspondences, the indices are passed in the modification message to identify columns having

modified data (See column 3 line 15-25). In other word, in order to detect changes of data record, the best thing is monitoring the index value in the table.

♦ As per claim 6 and 14, Bauer teaches that the modifications to the database are determined by the difference comparison between the current value in the active table and the before values in the before-image table. The active table is modified by client and contains the current values of the data fields (See column 3 line 32-50).

♦ As per claim 7-8 and 15-16, Bauer teaches in the invention that the computing system which have client side and server side application that share the same data structures, but which do not maintain a continuous connection to a single share data source. The updates performed by either client or server is propagated to the other side when a connection is established (see column 1 line 50-65). It's clearly to understand that the synchronizer is capable of determining that the client is online and is capable of activating the synchronizing operation based on the timestamp on the table in the logged entries.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al (U.S. 5,926,816).

♦ As per claim 2, 10, and 18, Bauer does not implicit state that server and client both operate substantially concurrently. However, Bauer teaches that proper synchronization should be frequently verified (see column 4 line 40-45).

Furthermore, the invention also discloses that the server receives the modification messages and processes them to determine if the client's operation is in conflict with operations that have taken place at the server. It would have been obvious to one of ordinary skill in the art at the invention was made to understand that both server and client are operate concurrently.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

♦ Bogantz et al (U.S. 6,243,715) teaches a replicated database synchronization method whereby primary database is selected queries to secondary database, primary database is updated, then secondary databases are updated.

♦ Parker Christopher (U.S. 6,289,357) teaches a method of automatically synchronizing married database objects.

♦ Foltz et al (U.S. 5,978,813) teaches a system for providing synchronization between a local area network and a distributing computer environment.

♦ Williams et al (U.S. 5,781,908) teaches a file data synchronizer in a distributed data computer network.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cam-Linh T. Nguyen whose telephone number is 703-

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305- 1951. The examiner can normally be reached on Monday - Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black, can be reached on (703) 305- 9707. The fax phone number for the organization where this application or proceeding is assigned is 703- 746- 7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703- 305- 3900.

LN

Cam-Linh Nguyen, Art Unit 2171

Frantz Coby
Primary Examiner
AU 2171
Frantz Coby